

Figure A-102. RU-21A and U-21A/D/G, ACN/PCN Curves

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Aircraft Manufacturer BeechAircraft Engine Manufacturer Pratt and Whitney of Canada (T74-CP-700)No. of Engines 2 Engine Rating 550 SHPMin. T/O Wt. 7.5 k-lb * Min. T/O Dist. @ Min. T/O Wt. †* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †Max. T/O Wt. Peace-Time 10.2 k-lb Max. T/O Wt. War-Time 10.2 k-lb* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,700 ft* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †Min. Ldg. Wt. 7.5 k-lb Max. Ldg. Wt. 9.7 k-lb* Min. Ldg. Dist. @ Min. Ldg. Wt. †* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,280 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades				Very	
	Ultra		Low		High		Medium			
	High A	Medium B	Low C	Low D	A	B	C	D		
8	3	3	3	3	3	3	3	3	3	
10	3	3	3	3	3	3	3	3	4	

Figure A-103. RU-21H

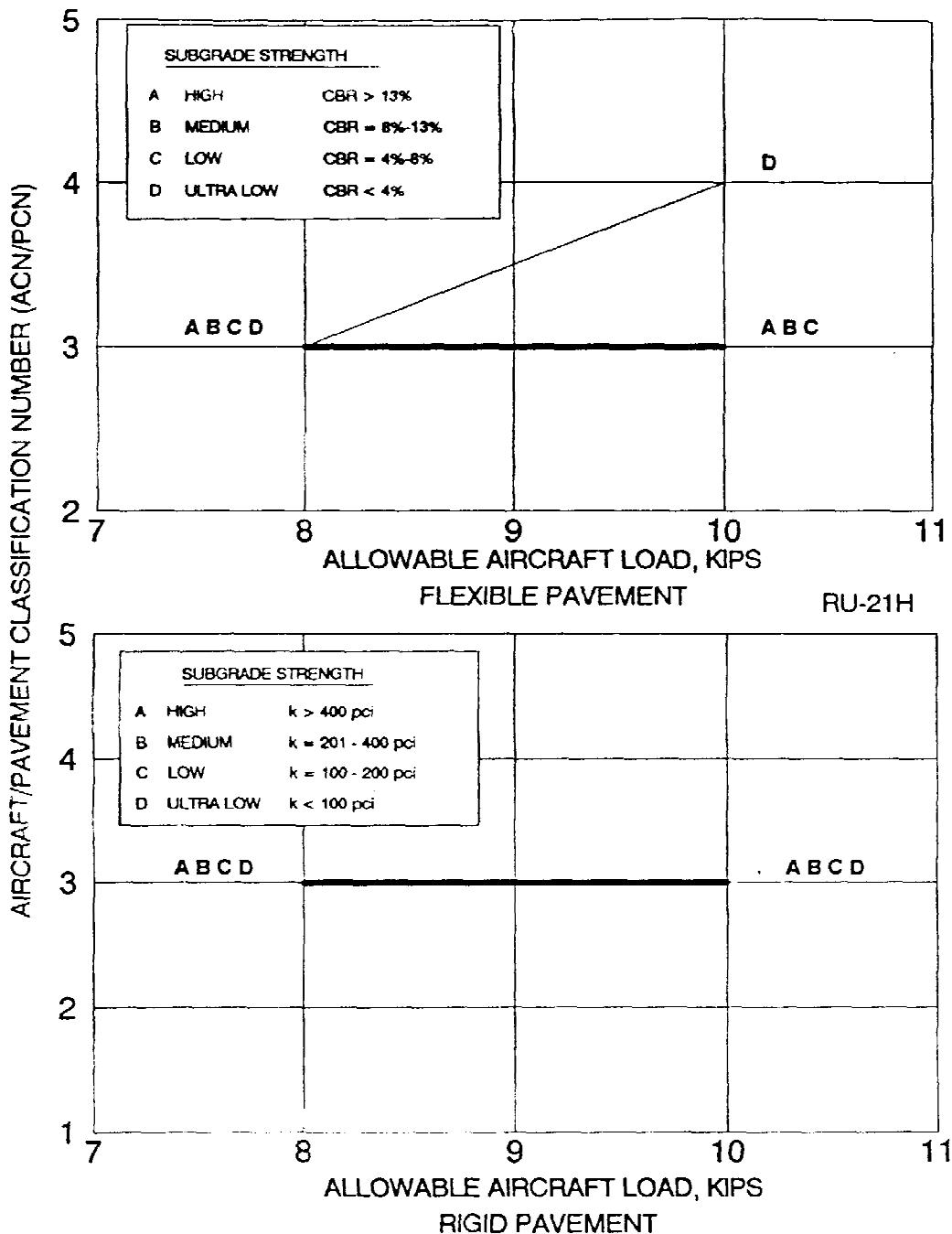


Figure A-104. RU-21H, ACN/PCN Curves

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Aircraft Manufacturer LockheedAircraft Engine Manufacturer Pratt and Whitney (JT11D-20B(J58))No. of Engines 2 Engine Rating 32,500 lbMin. T/O Wt. 84.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. †
(Estimated)* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †Max. T/O Wt. Peace-Time 170.0 k-lb Max. T/O Wt. War-Time 170.0 k-lb* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,400 ft (Estimated)* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †Min. Ldg. Wt. 84.4 k-lb Max. Ldg. Wt. †
(Estimated)* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,600 ft (Estimated)* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High		Medium	Low	High		Medium	Low
	A	B	C	D	A	B	C	Very Low D
84	23	26	27	27	17	18	19	21
170	59	68	68	67	42	44	45	46

Figure A-105. SR-71A, Blackbird

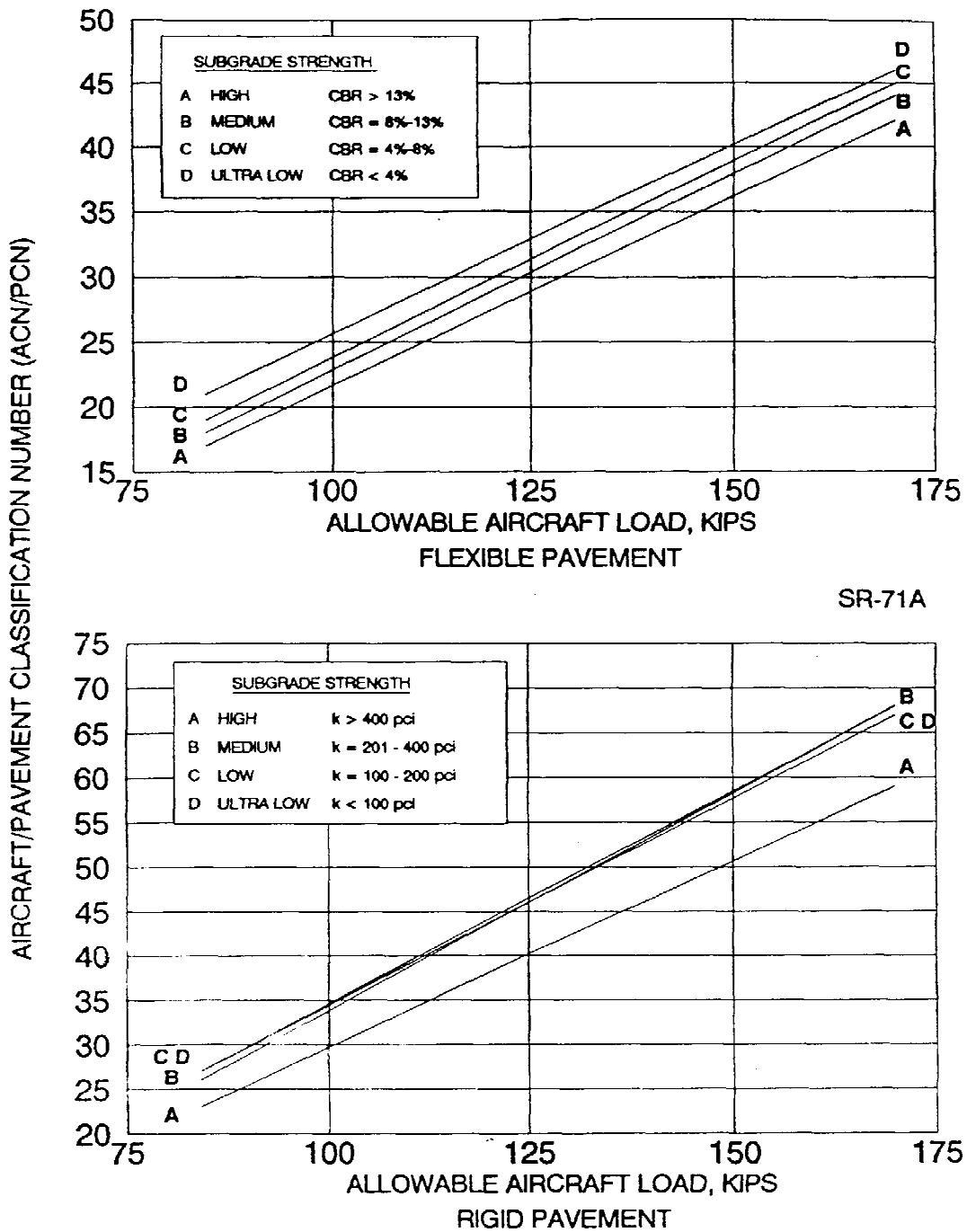


Figure A-106. SR-71A, ACN/PCN Curves

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Aircraft Manufacturer LockheedAircraft Engine Manufacturer Pratt and Whitney (J75-P-13B)No. of Engines 1 Engine Rating 17,000 lbMin. T/O Wt. † * Min. T/O Dist. @ Min. T/O Wt. † * Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. † Max. T/O Wt. Peace-Time 40.0 k-lb Max. T/O Wt. War-Time 40.0 k-lb* Min. T/O Dist. @ Max. T/O Wt. War-Time † * Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. † Min. Ldg. Wt. † Max. Ldg. Wt. † * Min. Ldg. Dist. @ Min. Ldg. Wt. † * Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

<u>Weight</u>	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	<u>High</u> <u>A</u>	<u>Medium</u> <u>B</u>	<u>Low</u> <u>C</u>	<u>Ultra Low</u> <u>D</u>	<u>High</u> <u>A</u>	<u>Medium</u> <u>B</u>	<u>Low</u> <u>C</u>	<u>Very Low</u> <u>D</u>

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-107. TR-1A

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Pratt and Whitney (J75-P-13)

No. of Engines 1 Engine Rating 17,000 lb

Min. T/O Wt. † * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 19.9 k-lb Max. T/O Wt. War-Time 19.9 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 790 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. † Max. Ldg. Wt. †

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades				
	High A	Medium B	Low C	Low D	Ultra	High A	Medium B	Low C	Very Low D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-108. U-2B/C

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Aircraft Manufacturer BeechAircraft Engine Manufacturer Lycoming (O-480-3A)No. of Engines 2 Engine Rating 340 BHPMin. T/O Wt. 6.10 k-lb * Min. T/O Dist. @ Min. T/O Wt. 720 ft* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †Max. T/O Wt. Peace-Time 7.70 k-lb Max. T/O Wt. War-Time 7.70 k-lb* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,180 ft* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †Min. Ldg. Wt. 5.60 k-lb Max. Ldg. Wt. 7.35 k-lb* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,060 ft* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,300 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High A	Medium B	Low C	Low D	High A	Medium B	Low C	Very Low D

7,700 lb/45 psi**

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-109. U-8F, Seminole

Aircraft Manufacturer Helio

Aircraft Engine Manufacturer Lycoming (GO-480-G1D6)

No. of Engines 1 Engine Rating 295 BHP

Min. T/O Wt. 2.70 k-lb * Min. T/O Dist. @ Min. T/O Wt. 290 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 3.00 k-lb Max. T/O Wt. War-Time 3.92 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 290 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 2.70 k-lb Max. Ldg. Wt. 3.92 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 180 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. †

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D

3,920 lb/28 psi**

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-110. U-10A, Helio-Courier

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Aircraft Manufacturer Beech

Aircraft Engine Manufacturer Pratt and Whitney of Canada (PT6A-28)

No. of Engines 2 Engine Rating 680 SHP

Min. T/O Wt. 8.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. †

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 11.5 k-lb Max. T/O Wt. War-Time 11.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,900 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,900 ft

Min. Ldg. Wt. 8.0 k-lb Max. Ldg. Wt. 11.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. †

* Min. Ldg. Dist. @ Max. Ldg. Wt. 870 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades				Very Low D
	High A	Medium B	Low C	Low D	Ultra	High A	Medium B	Low C	

11,500 lb/103 psi**

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Figure A-111. U-21F

Aircraft Manufacturer De Havilland Canada

Aircraft Engine Manufacturer Pratt and Whitney (PT6A-27)

No. of Engines 2 Engine Rating 620 SHP

Min. T/O Wt. 7.4 k-lb * Min. T/O Dist. @ Min. T/O Wt. 650 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 12.5 k-lb Max. T/O Wt. War-Time 12.5 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 1,200 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 9.0 k-lb Max. Ldg. Wt. 12.3 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 850 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 1,050 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
9	2	2	2	2	3	3	3	3
12	3	3	3	3	3	3	3	4
13	4	4	4	4	3	3	3	5

Figure A-112. UV-18, Twin Otter

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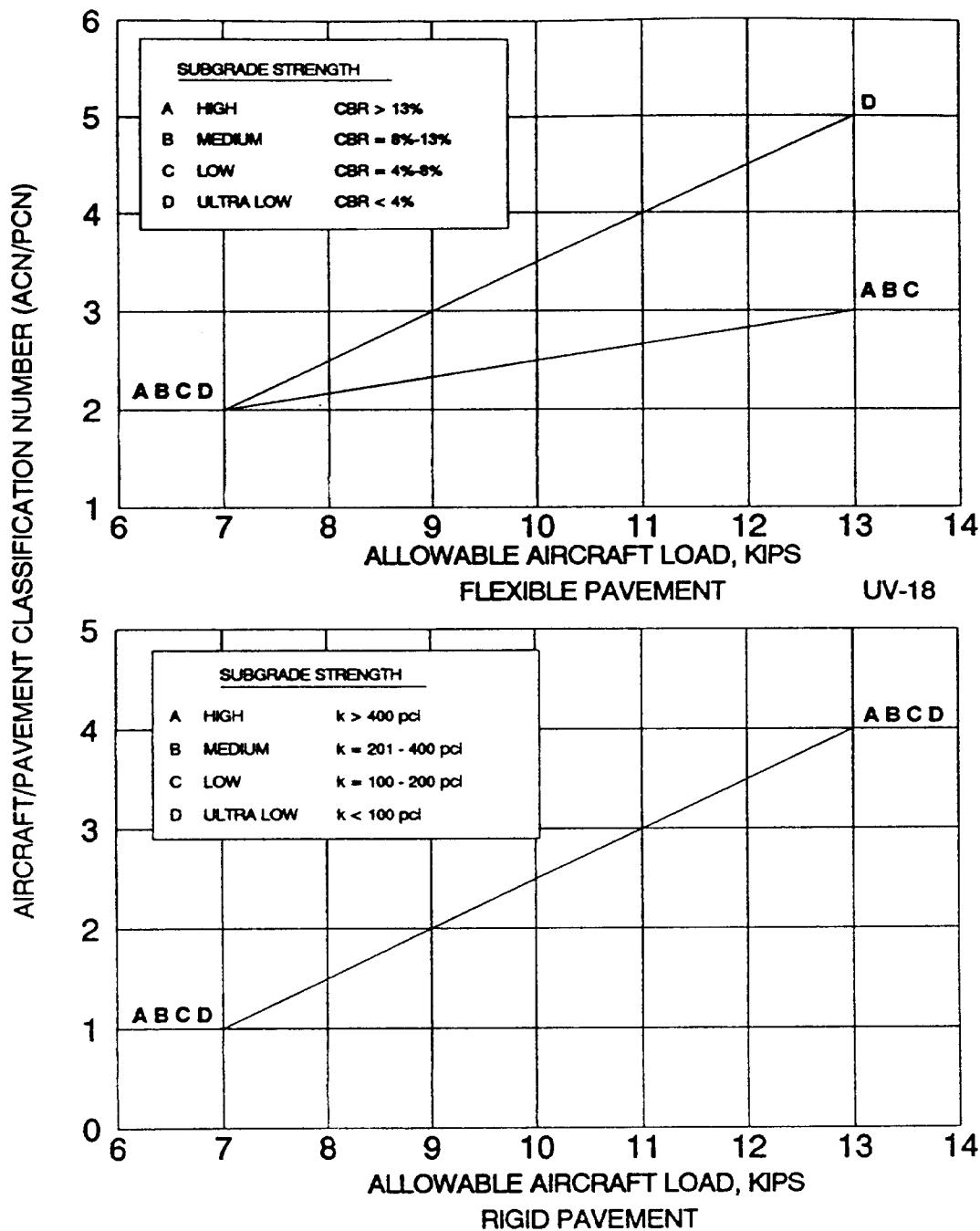


Figure A-113. UV-18, ACN/PCN Curves

Aircraft Manufacturer LTV

Aircraft Engine Manufacturer Allison (TF41-A-1)

No. of Engines 1 Engine Rating 13,390 lb

Min. T/O Wt. 22.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,400 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 42.0 k-lb Max. T/O Wt. War-Time 42.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 6,380 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 24.0 k-lb Max. Ldg. Wt. 37.1 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 3,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 8,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
24	9	9	9	9	9	9	9	9
37	16	16	16	15	15	14	14	14
42	18	18	18	17	17	16	16	16

Figure A-114. A-7D/K, Corsair II

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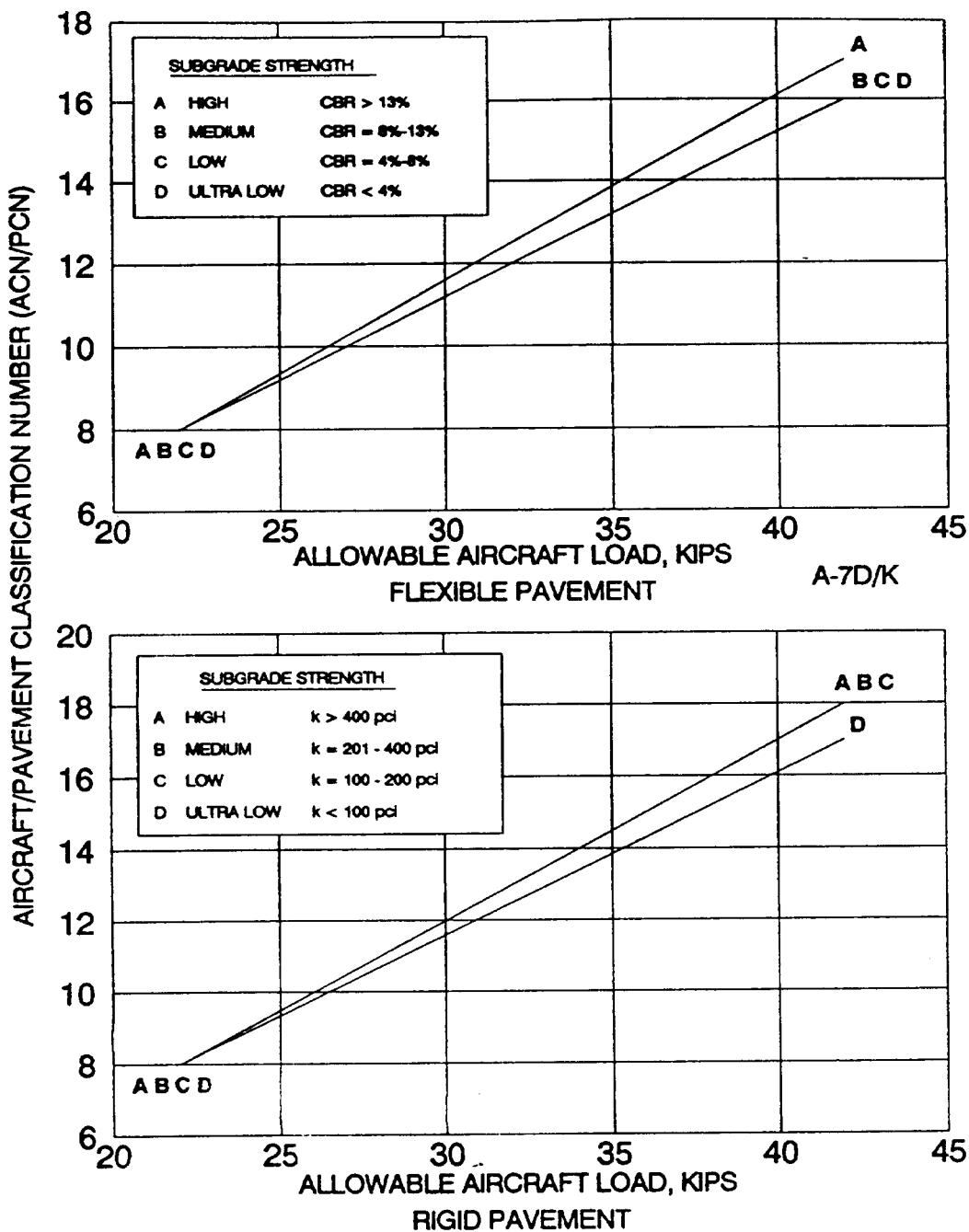


Figure A-115. A-7D/K, ACN/PCN Curves

Aircraft Manufacturer Fairchild

Aircraft Engine Manufacturer General Electric (TF34-GE-100)

No. of Engines 2 Engine Rating 8,900 lb

Min. T/O Wt. 28.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 1,000 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 2,000 ft

Max. T/O Wt. Peace-Time 50.0 k-lb Max. T/O Wt. War-Time 50.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 5,000 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 10,000 ft

Min. Ldg. Wt. 25.0 k-lb Max. Ldg. Wt. 33.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 2,500 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 5,000 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High		Medium	Low	Ultra	High		Low
	A	B	C	D	A	B	C	D
25	8	8	8	9	8	9	9	10
33	12	12	12	13	12	13	13	13
50	21	21	21	21	20	20	20	20

Figure A-116. A-10A, Thunderbolt II

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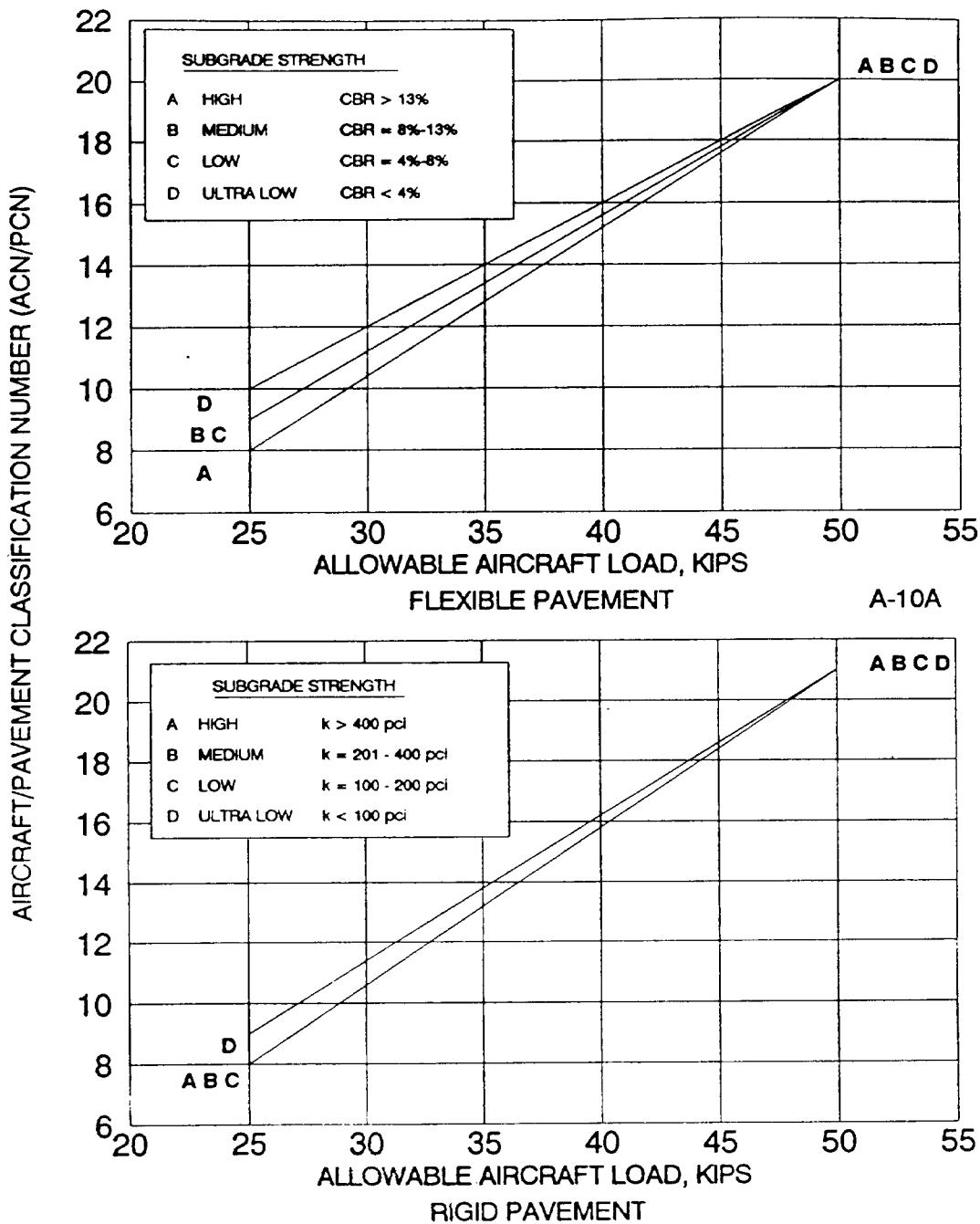


Figure A-117. A-10A, ACN/FCN Curves

Aircraft Manufacturer Cessna

Aircraft Engine Manufacturer General Electric (J85-GE-17A)

No. of Engines 2 Engine Rating 2,850 lb

Min. T/O Wt. 8.2 k-lb * Min. T/O Dist. @ Min. T/O Wt. 700 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. †

Max. T/O Wt. Peace-Time 14.0 k-lb Max. T/O Wt. War-Time 14.0 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,400 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. †

Min. Ldg. Wt. 7.5 k-lb Max. Ldg. Wt. 14.0 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,920 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 4,150 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High		Medium	Low	Ultra	High		Very Low
	A	B	C	D	A	B	C	D
8	2	2	2	2		1	2	2
14	5	5	5	5		4	5	5

Figure A-118. A-37B, Dragonfly

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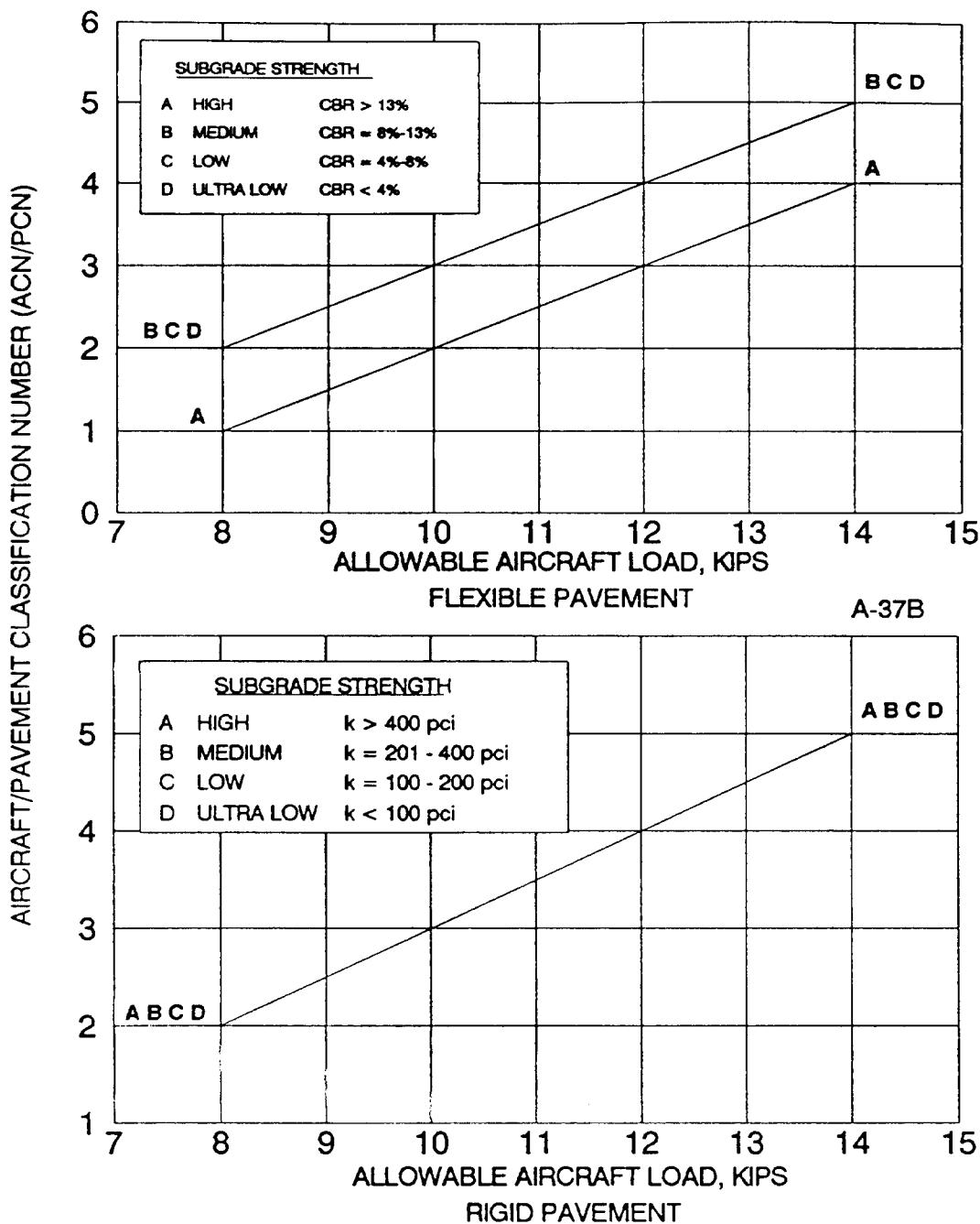


Figure A-119. A-37B, ACN/PCN Curves

Aircraft Manufacturer Lockheed

Aircraft Engine Manufacturer Allison (T56-A-9)

No. of Engines 4 Engine Rating 3,750 ESHP

Min. T/O Wt. 70.0 k-lb * Min. T/O Dist. @ Min. T/O Wt. 650 ft

* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist. 1,450 ft

Max. T/O Wt. Peace-Time 124.2 k-lb Max. T/O Wt. War-Time 124.2 k-lb

* Min. T/O Dist. @ Max. T/O Wt. War-Time 2,300 ft

* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist. 3,800 ft

Min. Ldg. Wt. 96.0 k-lb Max. Ldg. Wt. 124.2 k-lb

* Min. Ldg. Dist. @ Min. Ldg. Wt. 1,100 ft

* Min. Ldg. Dist. @ Max. Ldg. Wt. 2,500 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
			Ultra				Very	
	High A	Medium B	Low C	Low D	High A	Medium B	Low C	Low D
96	14	16	18	19	11	14	17	21
124	21	24	26	28	18	21	24	29

Figure A-120. AC-130A, Spectre

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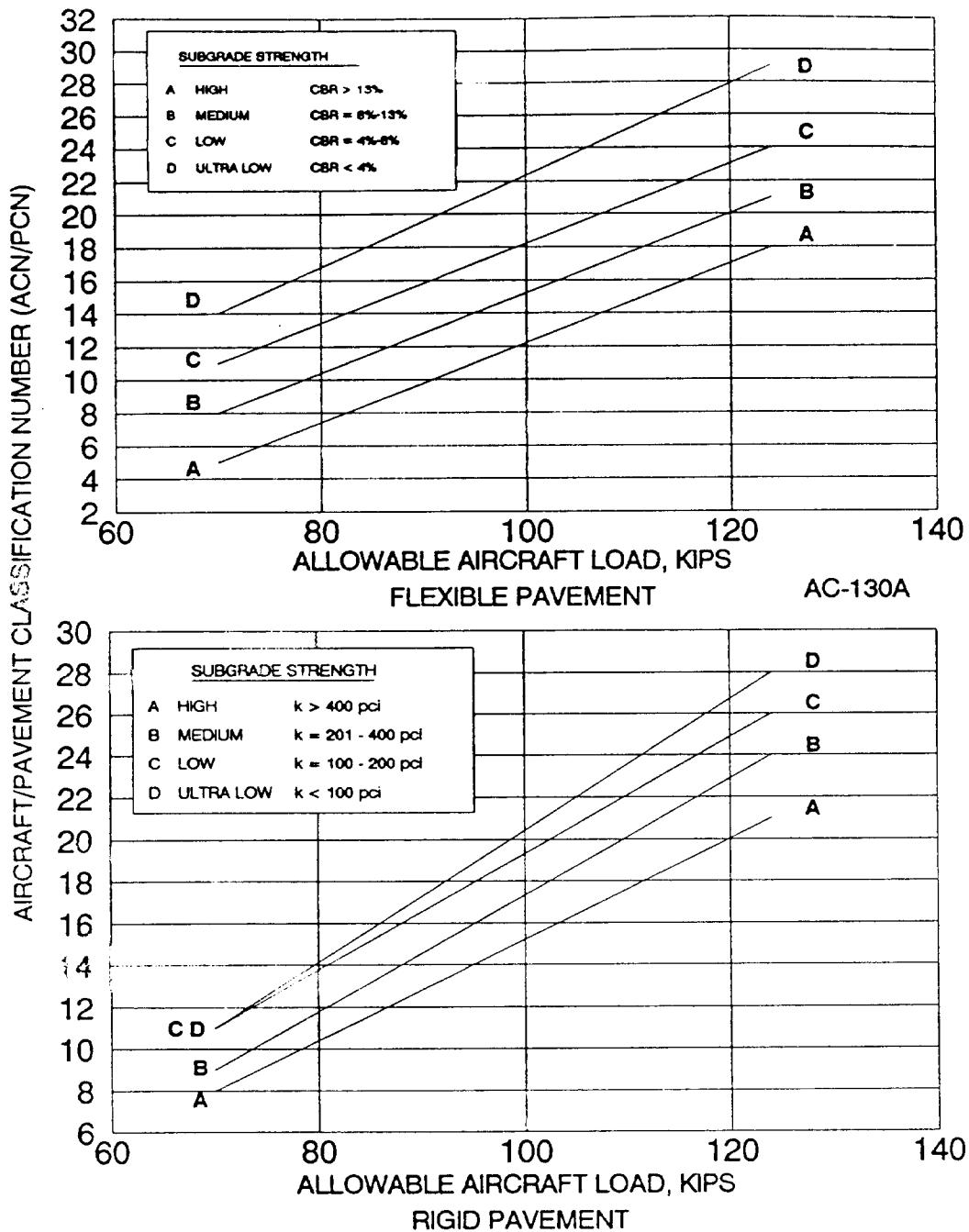


Figure A-121. AC-130A, ACN/PCN Curves